



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,105	02/11/2004	Toshiyuki Sudo	1232-5281	2823
27123	7590	12/08/2005	EXAMINER	
MORGAN & FINNEGANT, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101				CHANG, AUDREY Y
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/776,105	SUDO ET AL.
	Examiner Audrey Y. Chang	Art Unit 2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on October 12, 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 8 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-6 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 10/12/2004.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Remark

- This Office Action is in response to applicant's response to election filed on October 12, 2005.

Election/Restrictions

1. Applicant's election with traverse of species A (claims 1-6) in the reply filed on October 12, 2005 is acknowledged. The traversal is on the **ground(s)** that applicant is entitled to reasonable number of species disclosed in an application and there would be no undue burden on the examiner to conduct a substantive examination of the claims as related to the embodiments disclosed in the instant application, (as stated in Remark). This is not found persuasive because **firstly** although the applicant is entitled to reasonable number of species in an application, the species **cannot** be *mutually exclusive* from each other and *patentable distinct* from each other. In this case the three species are based on *mutually exclusive operation principle*, (i.e. polarization, wavelength and both polarization and wavelength coding). The examination and the search for one species will not be needed for the other species and the mutually exclusive operation principles will be serious burden for the examination process, (please see MPEP 806.04(f)).

The requirement is still deemed proper and is therefore made **FINAL**.

2. **Claims 7 and 8 are withdrawn** from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on October 12, 2005.
3. Claims 1-6 remain pending in this application.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 2872

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. **Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph,** as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification and the claims fail to teach how could the stereoscopic image be displayed by simply having an “optical separating member”. The optical separating member is capable of selectively transmitting the light of certain state however the image has to be coded with the selected state property in order for such selection to be possible. Also by simply selectively transmitting light of certain state **will not** give stereoscopic image. The key for achieving stereoscopic viewing is to have the left eye parallax image be presented to left eye of the observer **only** and the right eye parallax image be presented to right eye of the observer **only**. At this juncture the claims fail to provide this criterions and fail to provide the essential arrangement for achieving such criterion.

Claim Objections

6. **Claims 1-6 are objected to because of the following informalities:**

(1). The phrase “are lined up” recited in claim 1 is confusing and indefinite since it is not clear it is lined with what. Also it is not clear how can this selective transmission of light be possible if the parallax image has no such “state” specification.

(2). The phrase “first direction rows” recited in claim 3 is confusing and indefinite since it is not clear what does this mean. A “row” is only referred to horizontal arrangement of elements. Does this

means “first direction” is horizontal direction or not? What does it mans by having these “rows” being arranged in a second direction perpendicular to the first direction?

(3). What is this “optical member” and what does it mean by projecting light from a first position“ along the second direction” ? How can a position (generally is a point) be along a direction? Claim 3 is very confusing and the scopes of the claim cannot be definitely defined.

(4). The phrase “the optical control member” recited in claim 4 is confusing and indefinite since it lacks proper antecedent basis from its based claim. What is this “optical control member” and what is the optical function of the member and how does it relate to other elements in the system?

(5). The phrase “different properties” recited in claim 5 is confusing and indefinite since it is not clear what are these “different properties”. The scopes of the claims are not clearly defined.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1-2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by patent issued to Morishima et al (PN. 5,875,055).**

Morishima et al teaches a *stereoscopic image display apparatus* that is comprised of a *liquid crystal display device* (1, Figures 1, 2A and 2B) serves as the *display device* for displaying a plurality of *parallax images* (R and L) by different pixels and a *polarization optical element* (2) having a plurality of *state-selective regions* (2-A and 2-B) that are lined up with each other and with the parallax imaged

displayed on the display device. Morishima et al teaches that the polarization state-selective regions 2-A transmits light of a *first* polarization state and the polarization state-selective regions 2-B transmits light a *second* polarization state wherein the first and second polarization states are different from each other. Morishima et al teaches that the polarization optical element (2) in combination with the “pi” cell (30) enable the parallax images be transmitted through and state-selective regions to different viewing region such as right eye and left eye of the observer, (please see columns 5-8).

With regard to claim 2, Morishima et al teaches (as shown in Figures 2A and 2B) that the state-selective regions (2-A and 2-B) of the polarization optical element are lined up in horizontal direction such that the parallax images are directed to right eye and left eye in the horizontal direction.

With regard to claim 6, Morishima et al teaches that the polarization optical element having state-selective regions (2-A and 2-B) for selectively transmitting image light of different polarization state.

This reference has therefore anticipated the claims.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Morishima et al.**

The stereoscopic image display apparatus taught by Morishima et al as described for claim 1 above has met all the limitations of the claims.

With regard to claim 3, the scopes of the claim are very confusing for the reasons stated above and it can only be examined in the broadest interpretation. Morishima et al teaches that polarization optical element can have a *plurality* of horizontal rows (2-y1, etc. please see Figure 7C) with respect to different parallax image display format, (please see Figure 7A), wherein the plurality of rows is arranged along a vertical direction. With regard to claim 5, the state-selective regions of *different* polarization state (2-A and 2-B) in the polarization optical element are not overlapped.

This reference however does not teach explicitly about the “optical member” and “optical control member”. However the claims also fail to define what are these elements and how do they work with the other elements. It can only be examined with the broadest interpretation. Although Morishima et al does not teach explicitly about these members, however Morishima et al does teach explicitly that the image light from a predetermined position on the display device is *projected* to the state-selective regions at predetermined position to give stereoscopic image display. The projection direction of the light is in the direction perpendicular to the horizontal direction. This means there must be certain *optical element* for projecting the image light from the image display device to the polarization optical element and the observer. Although this reference does not teach about magnification power, such modification would have been obvious to one skilled in the art for the benefit of modifying the image to achieve a better magnifying viewing quality.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 571-272-2309. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2872

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. Chang, Ph.D.

*Audrey Y. Chang, Ph.D.
Primary Examiner
Art Unit 2872*

